

REMARKS

The claims have been amended to more clearly define the invention as disclosed in the written description. In particular, claims 3, 5, 10 and 12 have each been made proper independent claims, each including the limitations of the base claim and any intervening claims. In addition, the claims have been amended for clarity.

The Examiner has rejected claims 1, 2, 4, 6-9, 11 and 31-21 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,111,580 to Kazama et al. in view of U.S. Patent 3,922,665 to Curry et al. Applicants acknowledge that the Examiner has found claims 3, 5, 10 and 12 allowable over the prior art of record.

In view of the above changes, Applicants believe that claims 3, 5, 10 and 12 should now be allowed.

The Kazama et al. patent discloses an apparatus and method for controlling an electronic device with user action which includes a "gaze direction detection section" 11 for detecting the status of a person's eye(s), and a gesture recognition section 13 for detecting when a person moves his/her hand into a particular area. In particular, Kazama et al. discloses a method to control alarm clock signals by detecting when a person moves his/her hand in the vicinity of an alarm clock and also monitors the person's eye(s) to detect when the person is looking at the alarm clock or has his/her eye open.

The Curry et al. patent discloses an apparatus and method for maintaining operator alertness, in which a stimulus is gradually increased in intensity until the subject actuates a response switch.

The subject invention discloses a method and an alarm clock system which tracks the overall behavior of a person in a predetermined area under surveillance. Based on the results of this tracking, the subject invention determines whether the person is motionless. If so, the subject invention increases the alarm clock signals.

Applicants submit that Kazama et al. does not "track the overall behavior of a person in a predetermined area" and does not determine whether the person is motionless depending on the tracking. Rather, Kazama et al. detects whether a person moves his/her hand into a particular area and whether the person has opened his eye to determine whether the person is sleeping. In particular, Kazama et al. monitors an area in the vicinity of the alarm clock and detects when a person moves his/her hand into the area (col. 12, lines 26-40). Kazama et al. presupposes that a sleepy person sometimes gropes for the alarm clock and the gesture recognition section detects the person's hand entering the detection area (i.e., in the vicinity of the alarm clock).

Applicants submit that if a person does not move his/her hand into the area, no matter how much the person moves his/her hand (or any

other part of his/her body), Kazama et al. will not detect the movement and will assume the person is still sleeping.

Similarly, Kazama et al. discloses a gaze direction detection section 73 (Fig. 17), which is described with reference to Figs. 2 and 3 (col. 3, lines 34-57). This section of Kazama et al. is directed to the control of an electronic device using the gaze direction of the user's eye(s). As such, the user is consciously directing his/her gaze in the appropriate direction to allow the Kazama et al. imaging camera to (1) extract a face area, (2) extract the left eye area and the right eye area, and (3) calculate the gaze direction (or in the case of Figs. 17 and 18, detect whether the eye is open). However, this presupposes that the sleeping person is lying in the proper position. If the sleeping person has turned over onto his/her side or stomach, or has turned his/her head to one side or the other (very common with sleeping people), then the gaze direction detection section is defeated.

The subject invention, on the other hand, tracks the overall behavior of a person in a predetermined area under surveillance (e.g., as shown in Figs. 1 and 3, the bed). As such, unless the person rolls out of the bed and onto the floor, the subject invention is able to track his/her overall behavior regardless of his/her orientation upon activation of the alarm clock.

Applicant submit that this tracking of the overall behavior of a person and determining whether the person is motionless based on the tracking is neither shown nor suggested by either Kazama et al. or Curry et al.

Applicant believes that this application, containing claims 1-21, is now in condition for allowance and such action is respectfully requested.

Respectfully submitted,

by 
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